

DEC 04 2006

Appl. No. 10/611,315  
Amdt. Dated December 4, 2006  
Reply to Office Action of August 2, 2006

Attorney Docket No. 83394.0008  
Customer No.: 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A micro controller, comprising a CPU, performing processing in accordance with a program,  
said micro controller further comprising:  
a memory, storing: compressed codes, resulting from the conversion of program original codes into variable length codes,  
an address conversion information, specifying the head address of each group of grouped program compressed codes of variable lengths; and  
a compressed code type information, specifying, according to each group, the code length of each compressed code of variable lengths contained in each group; and  
a compressed code processing part, specifying, from a code address output by the CPU, an address conversion information and compressed code type information to be referred, using the specified address conversion information and the compressed code type information to determine the corresponding compressed code address, and reading the corresponding compressed code.
  
2. (Original) The micro controller as set forth in Claim 1, wherein the memory furthermore stores dictionary information for decompressing compressed codes into the original codes and the compressed code processing part refers the dictionary information to decompress the compressed code, which has been read, into the original code.

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3. (Original) The micro controller as set forth in Claim 1, wherein said compressed code processing part stores information for identifying the area in said memory in which compressed codes are stored, the area in said memory in which the address conversion information are stored, and the area in which the compressed code type information are stored.

4. (Currently amended) The micro controller as set forth in Claim 3, wherein said memory stores said address conversion information in the order of blocks of program original codes, and to store said compressed code type information in the order of the program original codes.

5. (Original) The micro controller as set forth in Claim 2, wherein said dictionary information are stored in areas that are divided according to the code lengths of the corresponding compressed codes, and in each area, said dictionary information are stored in the order of the codes of said corresponding compressed codes.

6. (Original) The micro controller as set forth in Claim 5, wherein said compressed code processing part specifies, from the compressed code type information, the area in which the dictionary information to be referred is stored, and, based on the compressed code, specifies the dictionary information to be referred that is contained in the specified area.

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7. (Original) The micro controller as set forth in Claim 1, wherein  
said compressed code processing part reads, from said memory and  
prior to reading a compressed code, a compressed code set, having a predetermined  
size and containing the compressed code to be read,  
said micro controller is equipped with areas, respectively storing  
temporarily the address conversion information, the compressed code type  
information, and the compressed code set that were used just immediately before,  
to use the address conversion information and the compressed code  
type information that are stored temporarily in said areas in a case where the code  
address output by the CPU is contained in the same block as the compressed code  
that was read just immediately before, and  
to read the compressed code from the compressed code set that is  
stored temporarily in said area in a case where the compressed code corresponding  
to the code address output by the CPU is contained in the compressed code set that  
was read just immediately before.

8. (Currently amended) The micro controller as set forth in Claim 1, wherein  
said compressed code contains the same code program as the original  
code.